

Cleistogamy in *Elatine gratioloides* A. Cunn. (Elatinaceae) — *Elatine gratioloides* is a small creeping annual herb found on wet mud or submerged in fresh water pools throughout Australia. It has been rarely collected in Western Australia, the only collections lodged in PERTH come from the goldfields and desert regions of the southern half of the state.

At Lake Cronin (32° 25'S. 119° 45'E), *Elatine* was a conspicuous member of the flora of newly exposed mud as the lake shrank in size. It is made noticeable by the large white or pink fleshy fruits. All specimens observed (voucher GK 1666) had only cleistogamous (flowers remaining closed and self fertilization occurring inside the closed flower) flowers (Fig. 1). Plants maintained this condition under cultivation. A second collection of this species from a gamma hole on the Woodline, N.E. of Norseman (31° 57'S. 122° 22'E) was also found to be cleistogamous (voucher GK 3029).

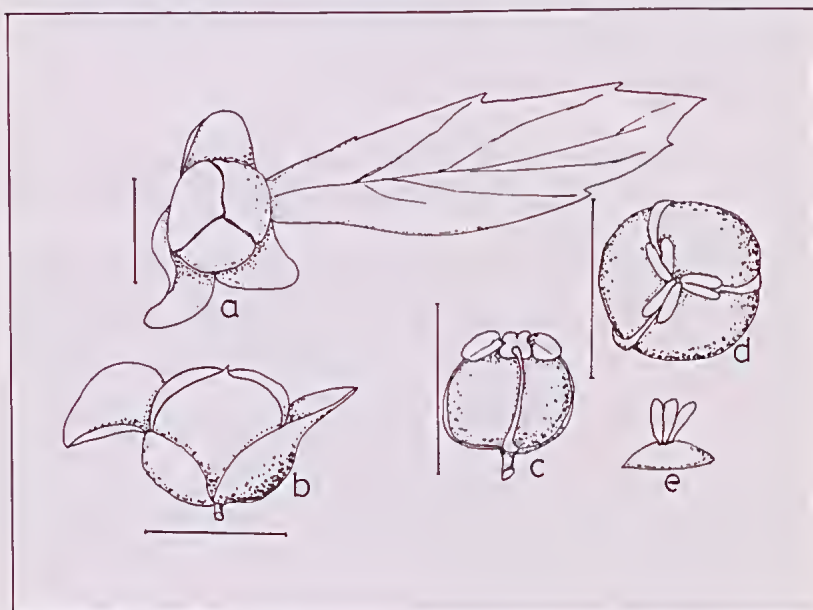


Figure 1. *Elatine gratioloides*

- A: Flower; top view.
 B: Flower; side view.
 C: Flower minus petals; side view showing anthers appressed to style.
 D: Top view of; flower minus petals.
 E: Style.
 Scale bar = 1mm.

I am not aware of any other report on the pollination or breeding system of *Elatine*. Aston ("Aquatic Plants of Australia" Melbourne University Press. 1973) figures this species (presumably from Victoria) showing normal open flowers. During 1980 I discovered a large population of *Elatine* 3 km N of Boyanup (voucher GK 3575) with open flowers. Apart from being a considerable range extension, studies on the pollination of this species are now possible.

— GREG KEIGHERY. Kings Park and Botanic Garden, West Perth, 6005 Western Australia.

***Solanum* berries and Wattlebirds** — During January 7-14, 1984 I was able to frequently observe many large clumps of *Solanum laciniatum* Ait. (Solanaceae; voucher GK 6511) naturalized along the edge of Wilson's Inlet at Denmark. Plants were flowering and fruiting abundantly. Mature fruits are oval (to 2 cm diameter), yellow-orange, soft with a sweet succulent pulp containing numerous seeds. Red Wattle Birds (*Anthochaera carunculata*) were observed piercing these fruits, and feeding on the pulp. This activity occurring at all times

of the day with morning and evening peaks. A survey of 203 mature fruits found that 189 had been penetrated in a manner similar to that on fruits checked after visitation by Red Wattle Birds. Since no nectar bearing flowers were present in the area, the *Solanum* berries could serve as a major summer food source.

— GREG KEIGHERY, Kings Park and Botanic Garden, West Perth, 6005 Western Australia.

Natural History Notes on Fauna of Kings Park — On December 11, 1983 at 1430 hrs. I observed large numbers of Red Wattle Birds (*Anthochaera carunculata*) in the nursery region. One young bird foraging on the wooden shade frames caught a small skink, subsequently beating it against a small tree limb and swallowing it. On December 13, another bird caught a lizard, but this escaped. I know of no other records of such behaviour.

On June 3, 1980 I observed a solitary Bee Eater (*Merops ornatus*) flying near it's nesting site at the glasshouse complex. This bird was not observed again after this date, and had probably departed. This was over a month later than the previous recorded departure dates (late April, J. Dell, pers. comm.).

Observations on *Astroloma macrocalyx* (Epacridaceae) have shown that nearly all mature fruits of this decumbent shrub (they are green, succulent, sweet tasting and about the size of a small grape) are removed and eaten by Bobtails (*Tiliqua rugosa*). The hard inner fruit then passes through the Bobtail's gut.

—GREG KEIGHERY, Kings Park

Floral Sexuality in *Stylobasium* Desf. (Stylobasidaceae) — Prance (The Systematic Position of *Stylobasium* Desf. Bull. du Jardin Bot. de L'Etat. XXXV:435-448, 1965) in his study of the systematics of *Stylobasium* stated that the genus had polygamous flowers, mostly either male or female but occasionally hermaphrodite. The author has checked flowers in a series of populations of *S. australe* (Hook.) Prance from Cockleshell Gully (voucher GK 2457, lodged in PERTH), Lake Indoon (GK 2435) and near Badgingarra. Over 200 plants were examined and all were found to have hermaphrodite flowers. No male or female flowers were observed.

An explanation for this difference is that the flowers of *Stylobasium* are markedly protandrous, the anthers dehiscing, then falling before the stigma matures (Fig. 1: a and b). Prance (1965) in his figure shows these stages as male and female flowers the filiform filaments of the female stage are denoted as staminodia.

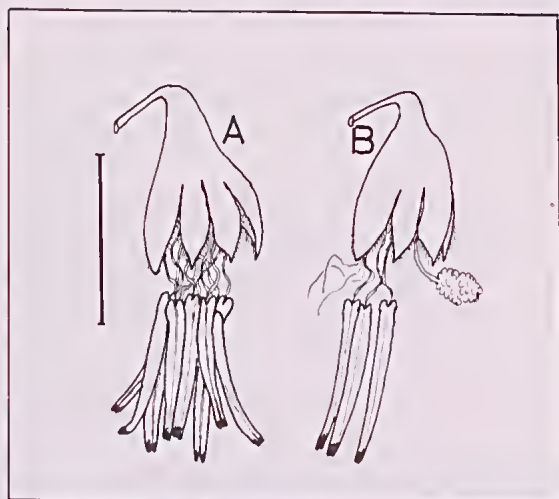


Figure 1. Flowers of *Stylobasium australe*

- A: Flower at male stage.
 - B: Flower at female stage.
- Scale bar = 5mm.